



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0637; Directorate Identifier 2013-SW-030-AD]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation (Sikorsky) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) for Sikorsky Model S-76A, B, and C helicopters. The existing AD currently requires inspecting the main rotor lower bifilar arm assembly (bifilar arm assembly) for a crack, and if there is a crack, replacing the bifilar arm assembly. The AD also requires a one-time test for the correct torque on the lug nuts, and if necessary, conducting torque stabilization tests. Since we issued that AD, Sikorsky has developed a terminating procedure for the inspections required by the existing AD. This proposed AD would retain the requirements of that AD, and would require replacing the main rotor hub (MRH) pilot with a different part-numbered MRH pilot, which would be terminating action for the requirements of the AD. The proposed actions are intended to prevent failure of a bifilar lug, damage to the main rotor control system, and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT 06614; telephone (800) 562-4409; email tsslibrary@sikorsky.com; or at <http://www.sikorsky.com>. You may review service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Nicholas Faust, Aviation Safety Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7763; email nicholas.faust@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

On October 26, 2005, we issued AD 2005-22-01, amendment 39-14345 (70 FR 61721) for Sikorsky Model S-76A, B, and C helicopters with an MRH pilot part number

(P/N) 76103-08003-101 with 1,500 or more hours time-in-service (TIS) installed. The AD requires, every 50 hours TIS, inspecting the main rotor lower bifilar arm assembly in the attachment area around the lower bifilar lugs for a crack. If there is a crack, the AD requires replacing the bifilar arm assembly. If there is not a crack, the AD requires a one-time test for the correct torque on the lug nuts, and if necessary, conducting torque stabilization tests. The AD was prompted by four reports of cracked bifilars. Those actions were intended to prevent failure of a bifilar lug, damage to the main rotor control system, and subsequent loss of control of the helicopter.

Actions Since Existing AD Was Issued

Since we issued AD 2005-22-01, Sikorsky issued Alert Service Bulletin 76-65-65, dated March 22, 2012 (ASB 76-65-65). ASB 76-65-65 specifies measuring the MRH diameter and, if the diameter is small, replacing the MRH pilot with a newly-redesigned MRH pilot. The new MRH pilot has a larger flange diameter that provides greater support for the bifilar assembly and reduces stress on the bifilar assembly attachment lugs. We propose to supersede AD 2005-22-01 to require installation of the large diameter MRH pilot as terminating action for the repetitive inspection requirements. These actions are intended to prevent failure of a bifilar lug, damage to the main rotor control system, and subsequent loss of control of the helicopter.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information

Sikorsky issued S-76 Alert Service Bulletin (ASB) 76-65-62, dated December 14, 2004 (ASB 76-65-62), which describes procedures to inspect the lower bifilar assembly for a crack. We have also reviewed ASB 76-65-65, which specifies measuring the MRH diameter and, if the diameter is small, replacing the MRH pilot with a newly-redesigned MRH pilot with a larger flange diameter.

Proposed AD Requirements

This proposed AD would retain the repetitive inspection requirements of AD 2005-22-01, but would also require replacing the MRH pilot, P/N 76103-08003-101, with MRH pilot, P/N 76103-08003-102, as terminating action.

Costs of Compliance

We estimate that this proposed AD would affect 181 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. Inspecting the bifilar arm assembly would require about 4 work-hours, at an average labor rate of \$85 per hour, for a cost per helicopter of \$340 and a total cost to U.S. operators of \$61,540.

Replacing a cracked bifilar arm assembly would require about 4 work-hours, at an average labor rate of \$85 per hour, and required parts would cost about \$19,727, for a cost per helicopter of \$20,067.

Replacing the MRH pilot, P/N 76103-08003-101, with an MRH pilot, P/N 76103-08003-102, would require about 0.7 work-hour, at an average labor rate of \$85 per hour, and required parts would cost about \$1,043, for a cost per helicopter of \$1,103 and a total cost to U.S. operators of \$199,643.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This proposed regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2005-22-01, Amendment 39-14345 (70 FR 61721, October 26, 2005), and adding the following new AD:

SIKORSKY AIRCRAFT CORPORATION: Docket No. FAA-2013-0637; Directorate Identifier 2013-SW-030-AD.

(a) Applicability.

This AD applies to Model S-76A, B, and C helicopters with a main rotor hub (MRH) pilot, part number (P/N) 76103-08003-101, installed, certificated in any category.

(b) Unsafe Condition.

This AD defines the unsafe condition as a crack on the MRH pilot bifilar assembly lug, which could result in failure of a bifilar lug, damage to the main rotor system, and subsequent loss of control of the helicopter.

(c) Affected ADs.

This AD supersedes AD 2005-22-01, Amendment 39-14345 (70 FR 61721, October 26, 2005).

(d) Comments Due Date.

We must receive comments by [INSERT DATE 60 DAYS AFTER PUBLICATION IN THE Federal Register].

(e) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions.

(1) For MRH pilots with 1,500 or more hours time-in-service (TIS), within 50 hours TIS, and thereafter at intervals not to exceed 50 hours TIS, inspect the lower bifilar arm assembly for a crack in the lug attachment area. Conduct the inspection of the lower bifilar arm assembly by following the Accomplishment Instructions, paragraph 3.A.(1) through 3.A.(6), of Sikorsky Alert Service Bulletin No. 76-65-62, dated December 14, 2004 (ASB 76-65-62).

(i) If there is a crack on any bifilar assembly arm lug, before further flight, replace the bifilar arm assembly with an airworthy bifilar arm assembly.

(ii) If no crack is found at the initial inspection, perform a one-time torque test. Perform the torque test and the additional torque procedures as stated in the Accomplishment Instructions, paragraph 3.B.(1) through 3.B.(3), of ASB 76-65-62. The torque test is not required at the recurring inspection intervals of the lower bifilar arm assembly.

(iii) Within 600 hours TIS, replace the MRH pilot, P/N 76103-08003-101, with an MRH pilot, P/N 76103-08003-102.

(2) For MRH pilots with less than 900 hours TIS, prior to accumulating 1,500 hours TIS, replace the MRH pilot, P/N 76103-08003-101, with a MRH pilot, P/N 76103-08003-102.

(3) After the effective date of this AD, do not install an MRH pilot, P/N 76103-08003-101, on any helicopter.

(g) Special Flight Permit.

Special flight permits will not be issued.

(h) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Nicholas Faust, Aviation Safety Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7763; email nicholas.faust@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or

certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(i) Additional Information.

For service information identified in this AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT 06614; telephone (800) 562-4409; email tsslibrary@sikorsky.com; or at <http://www.sikorsky.com>. You may review the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(j) Subject.

Joint Aircraft Service Component (JASC) Code: 6220: Main Rotor Head.

Issued in Fort Worth, Texas, on July 11, 2013.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2013-17631 Filed 07/22/2013 at 8:45 am; Publication Date: 07/23/2013]